## Chapter II.—GENERAL SUMMARY

This chapter presents combined statistics for all manufacturing industries for 1927 in comparison with those for preceding census years. The table on page 14 gives a combined summary for all manufacturing industries from 1849 to 1927, and the table on page 16 gives a summary for 1927, 1925, 1923, 1921, and 1919, with percentages of increase or decrease from census to census.

Production as measured by physical volume.—Because of the radical changes in prices which took place during the period covered by the table on page 16, the total values of products for the several census years are not properly com-Statistics of the actual physical quantity of products manufactured provide the most accurate available measure of growth and production. A study of the physical volume of output as disclosed by census figures was made for the Department of Commerce by Prof. Edmund E. Day, of the University of Michigan, and Mr. Woodlief Thomas, of the Federal Reserve Board, and the results have been published under the title "The Growth of Manufactures," as one of the series of census monographs. The index numbers given below for 1914 to 1925. inclusive, were calculated from the material used in the preparation of this monograph, and the index for 1927 was calculated by the same method. Although data on physical volume of output can be obtained for only a comparatively few of the many commodities manufactured, and furthermore do not reflect changes in quality of products, the figures available cover industries of such basic importance that when summarized into a set of index numbers they may be considered as approximately representative of relative changes in the total volume of products manufactured.

Index of physical output:		Per cent of increase or decrease (-):	
1914.	100.0	1914-1919	26.1
1919	126.1	1919–1921	-20.6
1921	100.1	1921-1923	
1923	153.8	1923-1925	3.4
1925	1159.0	1925-1927	. 9
1927	160.5	1914-1927	60.5

Summary, 1849–1927.—Although the manufacturing industries of the country were canvassed at the censuses of 1810, 1820, and 1840, the results were not comparable with those of the manufactures inquiries made in 1850 and subsequent census years. The returns made by each manufacturing establishment at each census from 1850 to 1890, inclusive, covered either the preceding calendar year or some other 12-month period which usually ended within the census year. The returns from the censuses taken in 1900 and subsequent years have related in the case of each establishment either to the preceding calendar year or to the business year which corresponded most nearly thereto. In this report the statistics for all censuses are presented as relating to the year immediately preceding that in which the census was taken.

The manufactures data collected at the decennial censuses from 1850 to 1900, inclusive, covered the so-called neighborhood, hand, building, and household industries, as well as the factory industries, whereas the canvasses for 1904 and

subsequent census years covered factory industries only. (See "The factory

system," p. 6.)

The statistics for 1899 (census of 1900) have been reduced to the factory basis by eliminating, so far as possible, the data for the neighborhood, hand, building, and household industries, but no such elimination is possible in the case of the earlier censuses. For this reason the statistics for years prior to 1899 are not comparable with those for 1904 and subsequent census years. Nevertheless, for the purpose of showing in a rough way the industrial progress of the country from census year to census year since 1849, the summary following is presented.

Two sets of figures are given for 1899, one including data for the neighborhood, hand, building, and household industries, in order to preserve comparability between 1899 and earlier years, and the other excluding such data in order to make the figures for 1899 comparable with those for later years. The financial items for 1869, which were reported in inflated currency worth in gold about 80 per cent of its nominal value, have been reduced to a gold basis in this presentation in order to make the figures for that year comparable with those for preceding and following census years.

COMBINED SUMMARY FOR ALL MANUFACTURING INDUSTRIES, FOR THE UNITED STATES: 1849 TO 1927

[The differences between the figures for the years 1914 to 1925 as shown in this table and in the similar table as published for 1925 are: (1) The statistics (except for the year 1925 for which the data were not tabulated) have been revised by the addition of data for "Coffee and spice, roasting and grinding" and (2) by the omission (from the statistics for all years) of the data for "Poultry killing and dressing"]

	Number of establish- ments	Wage earners (average for the year)	Wages
FACTORIES AND HAND AND NEIGHBORHOOD INDUSTRIES 1840 1 1859 1 Per cont of increase, 1849 to 1859 1860 1 Per cent of increase, 1859 to 1869 1870 1 Per cent of increase, 1869 to 1879 1889 1 Per cent of increase, 1870 to 1889 1999 1 Per cent of increase, 1889 to 1899 FACTORIES, EXCLUDING HAND AND NEIGHBORHOOD INDUSTRIES 1869 1 1904 1 Per cent of increase, 1899 to 1904 1909 1 Per cent of increase, 1904 to 1909 Per cent of increase, 1904 to 1909 1914 1 Per cent of increase, 1909 to 1914 Per cent of increase, 1904 to 1914 1919 2 Per cent of increase, 1914 to 1919 1921 2 Per cent of increase, 1914 to 1919 1923 2 Per cent of increase, 1921 to 1923 1925 3 Per cent of increase or decrease (-), 1923 to 1925 1927 2 Per cent of increase or decrease (-), 1925 to 1927 Per cent of increase or decrease (-), 1925 to 1927	123, 025 140, 433 14.1 252, 148 79. 6 253, 852 0. 7 355, 405 40. 0 512, 191 44. 1  207, 514 216, 180 4. 2 208, 491 24. 2 29, 4 272, 402 1, 5 26. 0 176, 997 214, 188 21. 0 196, 098 -8, 4 196, 182 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 187, 224 -1, 189, 224 -1, 187, 224 -1, 1	957, 059 1, 311, 246 37.0 2, 053, 996 55.6 5, 362, 525, 55.6 5, 308, 143 24.8 4, 712, 763 5, 468, 883 16.0 6, 615, 046 4, 7, 022, 332 6, 22, 332 6, 24, 8, 894, 846 8, 997, 921 30.5 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 944, 315 6, 949, 756	70.6 4,067,096,462 18.7. 55.8 14,067,096,463 110,459,741,821 187.5 8,200,359,386 —21. 11,007,881,451 34.4. 10,727,337,62 —2. 10,848,802,53

See footnotes at end of table.

## Combined Summary for All Manufacturing Industries, for the United States: 1849 to 1927—Continued

[See note at head of this summary]

	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture
FACTORIES AND HAND AND NEIGHBORHOOD  1849 1 1859 1 Per cent of increase, 1849 to 1859 1869 1 Per cent of increase, 1859 to 1869 1879 1 Per cent of increase, 1869 to 1879 1889 1 Per cent of increase, 1879 to 1889 1899 1 Per cent of increase, 1889 to 1899 FACTORIES, EXCLUDING HAND AND NEIGHBORHOOD INDUSTRIES	\$555, 123, 882 1, 031, 005, 092 85, 8 1, 990, 741, 794 93. 3, 396, 823, 549 70. 5, 162, 013, 878 52. 0 7, 343, 627, 875 42. 3	\$1, 019, 106, 616 1, 885, 801, 676 85, 1 3, 385, 860, 354 79, 5 5, 369, 579, 191 58, 6 9, 372, 378, 843 13, 000, 149, 159 38, 7	\$463, 982, 734 854, 256, 584 84, 1 1, 395, 118, 560 63, 3 1, 972, 755, 642 41, 4 4, 210, 364, 965 113, 4 5, 656, 521, 284 34, 3
1899	12, 142, 790, 878 42.9 84.7 14, 347, 729, 411 18.2 68.8 14, 267, 137, 208 37, 196, 688, 773 25, 291, 734, 235 —32.0 34, 683, 915, 155 37.1 35, 896, 886, 428 35, 133, 136, 889	11, 406, 926, 701 14, 798, 902, 563 29, 7 20, 672, 051, 870 30, 7 81, 2 24, 203, 597, 965 17, 1 63, 6 63, 697, 968, 444 158, 6 43, 618, 565, 920 -29, 674, 115 38, 8 62, 668, 259, 591 3, 5 62, 718, 347, 289 0, 1	4, 831, 075, 210 6, 293, 694, 753 29, 7 8, 529, 260, 992 35, 5 76, 5 9, 855, 868, 554 15, 6 9, 707, 820, 170 24, 803, 404, 671 155, 5 18, 326, 831, 685 25, 845, 658, 960 41, 0 26, 771, 373, 103 3, 6 27, 585, 210, 400 3, 0

 $<sup>^1</sup>$  For all establishments having a value of products of \$500 or more.  $^2$  For all establishments having a value of products of \$5,000 or more.

## Combined General Statistics for All Manufacturing Industries: 1919 to 1927

[No data for establishments reporting products under \$5,000 in value are included in this table except for certain items for the year 1919. The items for which data for this class of establishments \$0.214, was earners (average for the year) the subtraction of such data, as follows: Number of establishments \$0.214, was earners (average for the year), 41.250 cost of materials, supplies, containers for products, find, and power, \$56,028,840, value of products, \$151,628,601, value added by manufactions, \$56,001,231. In order further to preserve the comparability of the figures, the following adjustments have been made: The data for establishments engaged in automobile repairing and those for purchased power other than electric have been contited from the figures for 1919, no such data having been tabulated at subsequent censuses. The data for the "Coffee and spice, reasting and grinding," industry, which had been subtracted from the figures for 1923, 1913, and 1919, as published in the report for 1923, 1926, present as a whole, were compiled for the figures for the earlier pears as a whole, were compiled for the figures for 1922, and 1919, and 1919, as a whole were compiled for 1923, 1922, and 1919, a

	Value added by manufac- ture 1	27, 585, 210, 400 27, 486, 581, 887 28, 771, 373, 163 25, 845, 658, 960 18, 326, 831, 685 24, 803, 404, 671		2,7 3,6 41.0 26.1 6,7 5,0.5 11.2
	Value of products 1	Dollars 62, 718, 347, 289 62, 625, 511, 284 62, 668, 259, 591 60, 529, 574, 115 43, 618, 565, 920 62, 000, 093, 444		-0.7 39.83 39.85 39.65 49.85 2.1
3,44	cost of materials, supplies, containers for products, fuel, and power 1	Dollars 35, 133, 136, 889 34, 789, 929, 587 35, 896, 428 34, 683, 915, 155 25, 291, 734, 235 37, 196, 688, 773		83.7.1 32.0 32.0 5.59 5.59
ES 1	Wages	Dollars 10, 848, 802, 532 10, 839, 865, 059 10, 727, 337, 625 11, 007, 819, 450 8, 200, 389, 380 10, 459, 741, 826	<u>(</u>	1.0 -2.0 34.2 -21.6 -1.4 32.3 37.7
SALARIES AND WAGES	Salaries 3	Dollars 3, 229, 524, 618 5, 217, 508, 680 2, 921, 184, 037 2, 562, 321, 617 2, 562, 321, 617 2, 563, 175, 767		10.1 4.1 9.5 11.0 15.1 26.0
SAI	Total	Dollurs 14, 078, 327, 150 14, 056, 578, 789 13, 648, 521, 662 18, 813, 742, 836 10, 762, 680, 997 13, 339, 917, 593	PER CENT OF INCREASE OR DECREASE	1.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00
	Horsepower	38, 825, 681 58, 783, 159 35, 766, 944 33, 092, 222 (e) 29, 323, 653	PER CE	8.4 8.1 17.3
IDUSTRY	Wage earners (average for the year)	8, 349, 755 8, 841, 660 8, 381, 511 8, 776, 646 6, 944, 315 8, 997, 921		26.4 28.4 29.28 20.2 20.2
PERSONS ENGAGED IN THE INDUSTRY	Salaried officers and em- ployees 8	1, 301, 002 1, 296, 557 1, 255, 369 1, 269, 028 1, 145, 800 1, 437, 698		11.1.3.2 20.38 13.55 13.55 6.955
ENGAGE	Propri- etors and firm mem- bers	132, 681 132, 858 132, 988 148, 315 172, 744 250, 395		-0.5 -10.3 -14.1 -31.0 -23.2 -47.0
PERSONS	Total	9, 783, 438 9, 770, 875 9, 769, 868 10, 193, 989 8, 262, 859 10, 686, 014		(7) -23.4 -22.7 -4.0 18.4 -8.4
	Number of estab- lish- ments	191, 866 190, 917 187, 224 196, 182 196, 098 214, 188		(7) (7) (8, 4) (10, 2) (10, 4)
	YEAR OR PERIOD	1927 4 1925		1925-1927 6 1923-1925 1921-1923 1919-1921 1923-1927 1921-1927

1 The amount of manufacturers' profits can not be calculated from the census figures, for the reason that no data are collected in regard to a number of items of expense, such as interest on investment, taxes, insurance, and advertising

\*\* The statistics for statistics for substitutions and for the salaries of such analysis of such an appropriate statistics for substitutions and for the salaries of such a transition of substitutions and supplyees and for the salaries of such a statistics for substitutions and supplyees, for 1919 and 1921 but not for subsequent years. (A "central-administrative office is located.) For 1919 and 1921 the statistics were tabulated in such a manuer sho render in impracticable to segregate the data for central-administrative-office employees, for 1923 and 1925 it was possible to segregate the data for central-administrative-office employees, and 1925 it was possible to segregate the data for central-administrative-office employees and the amounts of their salaries, as reported at the censuses for 1927 no data were as follows: 1925—54.646 employees; salaries, \$225,512,768. 1925—66.378 employees; salaries, \$207,540,169. (See "Adjustments in figures for earlier years," p. 5.)

Percentages refer to the adjusted figures for 1927. (See "Adjustments in figures for earlier years," p. 5.)
 Less than one-tenth of 1 per cent.